

Work Order ID 103509

\*103509\*

Page 1

June-24-13 1:57:16 PM

Item ID: D4021-1

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

Stop

\*NS2\*

Item Name: Handle Plate

Start Date: 6/24/13 Start Qty: 10.00

\*10\*

Cust Item ID:

Required Date: 7/05/13 Req'd Qty: 10.00

\*10\*

Customer:

Reference:

Approvals: Process Plan: ML5

Date: 13-06-26

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start

\*NR1\*

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop

\*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
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D4021	B
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100	
-----	--

\*100\*

Waterjet

FLOW CNC Waterjet

304.125"

Memo

Cut as per dwg D4021

Prog Rev: B

Dwg Rev: B

Deburr as required

110	QC2- Inspect parts off machine FAI/FAIB	0.00
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\*110\*

QC

Quality Control

Memo

0.00

28 0 Jm B-07-03

110	QC2- Inspect parts off machine FAI/FAIB	0.00
-----	---	------

\*110\*

QC

Quality Control

Memo

0.00

28 0 Jm B-07-03

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only 

Work Order: _____	DISPOSITION				AGAINST DEPARTMENT/PROCESS				
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

## FAULT CATEGORY

Landing Gear	General			
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>
	Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>
	Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>
	Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Part Moved <input type="checkbox"/>
	Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>
	Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>
	Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>	Pressure/Forced Set-up <input type="checkbox"/>
	Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	Weld <input type="checkbox"/>
	Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
				Other <input type="checkbox"/>

Work Order ID 103509

\*103509\*

Page 2

June-24-13 1:57:16 PM

Item ID: D4021-1

Accept

\*N900040100\*

Setup Start

\*NS1\*

Revision ID:

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\*NS2\*

Item Name: Handle Plate

Start Date: 6/24/13 Start Qty: 10.00

\*10\*

Cust Item ID:

Required Date: 7/05/13 Req'd Qty: 10.00

\*10\*

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

\*NR1\*

QC:

Date:

SPC (Y/N):

Date:

Stop

\*NR2\*

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

\*120\*

QC

Quality Control

QC8- Inspect parts - second check

0.00

228

0.00

157-8

28  
count

140

\*140\*

Packaging

Packaging

Identify as per dwg & Stock Location: WAC04 0.00

0.00

28 x M. 10. 13-07-8

150

\*150\*

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

0.00

13/7/98

MF  
13/7/98

DQA: \_\_\_\_\_

Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_

Date: \_\_\_\_\_

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NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

## FAULT CATEGORY

Landing Gear		General									
<input type="checkbox"/>	Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Folio/Program	<input type="checkbox"/>	Outside Dimensions	<input type="checkbox"/>	Pressure/Forced		
<input type="checkbox"/>	Centre Not Concentric	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Set-up		
<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Broken/Damage/Defect	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Temperature/Cure		
<input type="checkbox"/>	Crimp/Kink/Ripple/Wave	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Inspection Incomplete/Unqualified	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Weld		
<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Moved	<input type="checkbox"/>	Wrong Stock Pulled		
<input type="checkbox"/>	Crushing	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Misaligned/off center	<input type="checkbox"/>	Positioned Wrong	<input type="checkbox"/>			
<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Power Loss/ Surge	<input type="checkbox"/>	Other		
<input type="checkbox"/>	Inspection Strip in Tube	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Misread	<input type="checkbox"/>					
<input type="checkbox"/>	Marks/Chatter	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Off-set	<input type="checkbox"/>					
<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Calibration	<input type="checkbox"/>					
<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Fit/Function	<input type="checkbox"/>	Out of Sequence	<input type="checkbox"/>					

**Picklist Print**

June-24-13 1:57:15 PM

Page 1

**Work Order ID:** 103509**Start Date:** 6/24/13**Required Date:** 7/05/13**Parent Item:** D4021-1**Start Qty:** 10.00**Required Qty:** 10.00**Parent Item Name:** Handle Plate

**Comments:** IPP RevA: new issue DD 09.11.25 verified by:EC  
 10.02.22 verified by:EC IPP Rev:B as per dwg REV.A DD  
 IPP Rev:C as per dwg revB DD 10.04.20 verified by:EC

<b>Component Item ID/ Item Name</b>	<b>Replacement Item ID</b>	<b>Mfg/ Purch</b>	<b>Bin Item</b>	<b>Primary Location</b>	<b>Last Location</b>	<b>Route Seq ID</b>	<b>Unit of Measure</b>	<b>Qty on Hand</b>	<b>Qty per Kit</b>	<b>Total Qty</b>	<b>Qty Issued</b>	<b>Date Issued</b>	<b>Status</b>
M304S11GA 304/316 0.125 Sheet	Purchased	No				100	sf	322.5833	0.1225	1.289474 4.0		JmB-0207	

<b>Location</b>	<b>Loc Qty</b>	<b>Loc Code</b>
MAT020	322.5832632	
122521	19.1432632	
124445	111.44	
M126075	192	

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only 

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NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

### FAULT CATEGORY

Landing Gear	General		
Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>
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Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>
Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>
Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>	Other <input type="checkbox"/>
Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>	
Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	
Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	

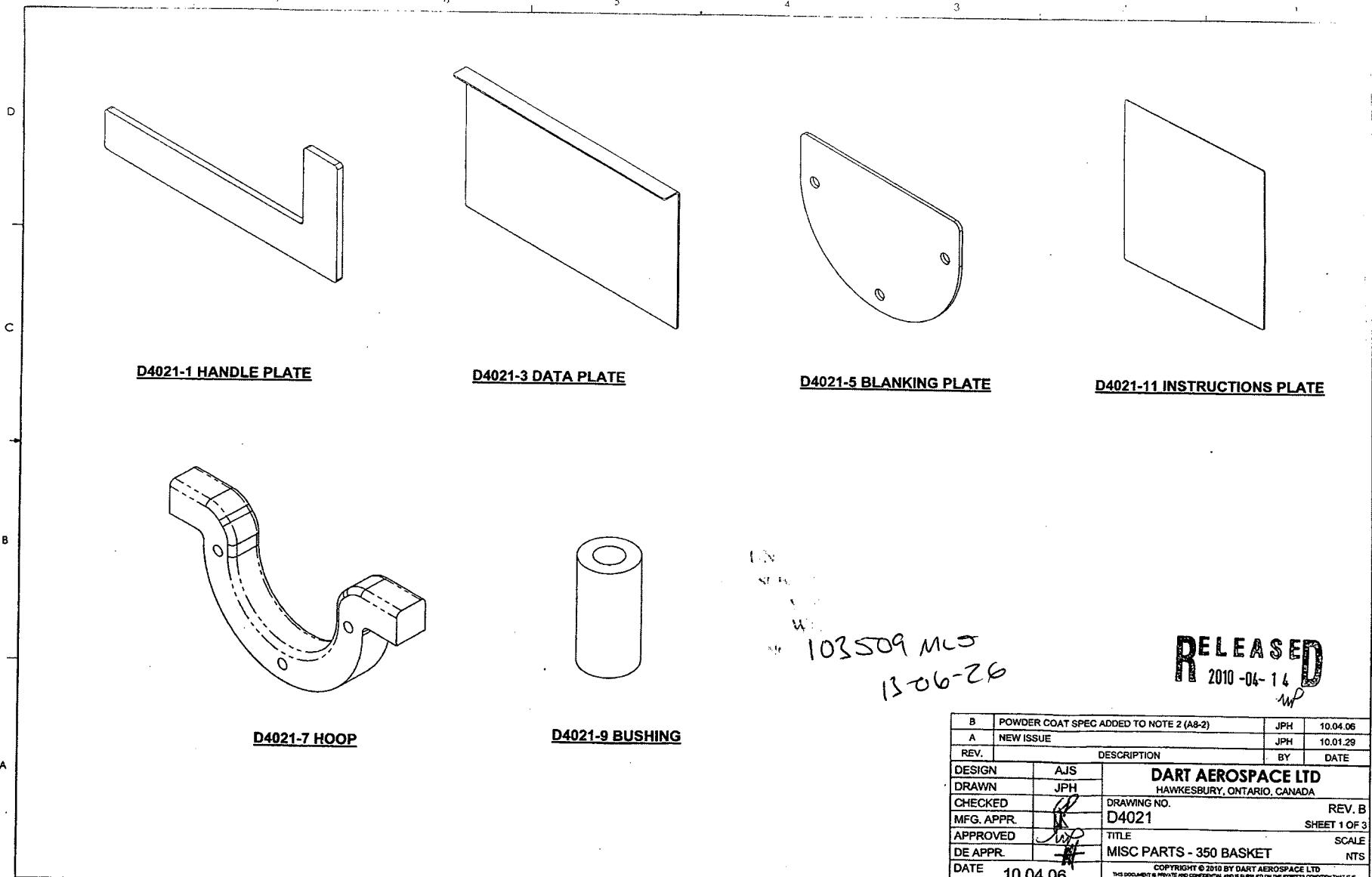
DART AEROSPACE LTD	Work Order:	103509
Description: Handle Plate	Part Number:	D4021-1
Inspection Dwg: D4021	Rev: B	Page 1 of 1

## **FIRST ARTICLE INSPECTION CHECKLIST**

54

Measured by:	Jm	Audited by:		Preliminary Approval:	
Date:	13-07-03	Date:		Date:	

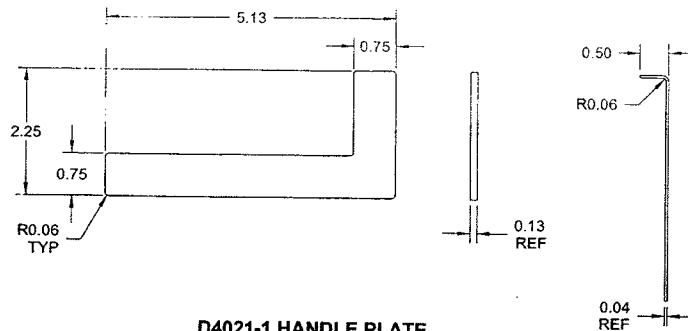
5 7 9 1 3 4 6 8



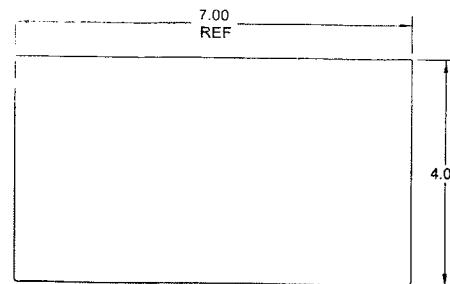
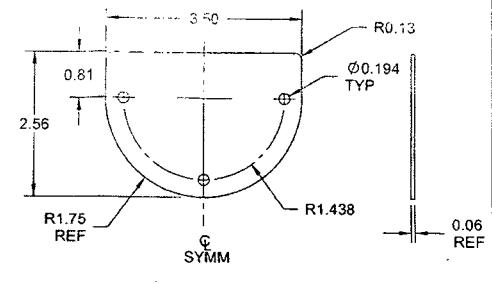
8 7 6 5 4 3 2 1



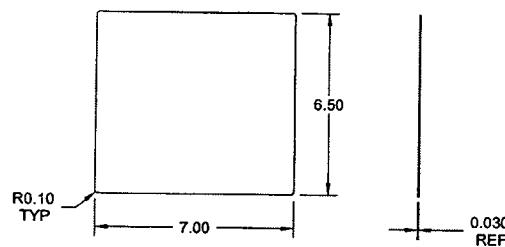
103509



D4021-1 HANDLE PLATE

D4021-3 DATA PLATE  
MAKE FROM D4021-3F

D4021-5 BLANKING PLATE



D4021-11 INSTRUCTIONS PLATE

## NOTES:

1) MATERIAL -1: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH,  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240  
REF DART SPEC M304S11GA

-3F: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH,  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240  
REF DART SPEC M304S20GA

-5: 303/304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH,  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240  
REF DART SPEC M303S16GA OR M304S16GA

-11: 304/316 STAINLESS STEEL SHEET ANNEALED 2B FINISH,  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240  
REF DART SPEC M304S22GA

B) 2) FINISH: -1/-3/-11: NONE

-5: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

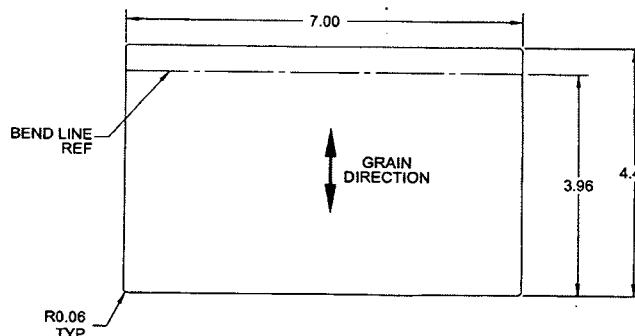
6) IDENTIFICATION: N/A

7) WEIGHT -1: 0.18 lbs

-3: 0.35 lbs

-5: 0.14 lbs

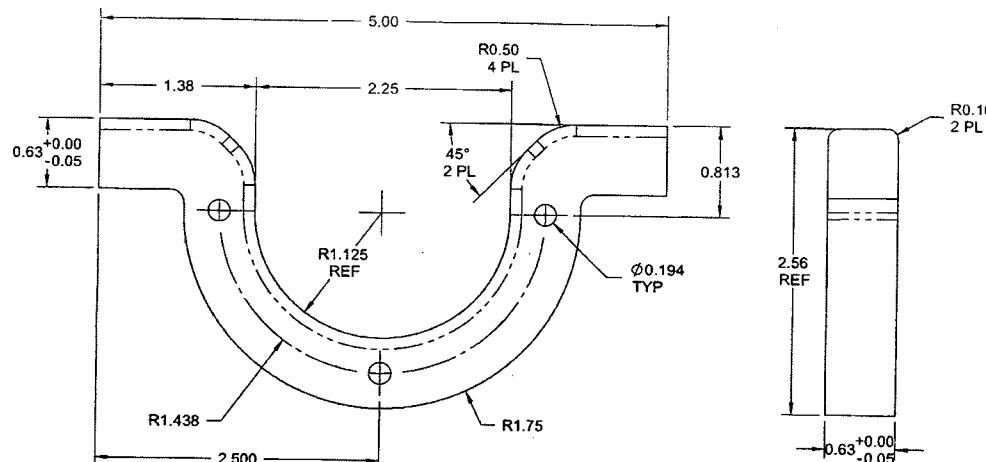
-11: 0.39 lbs

D4021-3F DATA PLATE  
FLAT PATTERNRELEASED  
2010-04-14  
NP

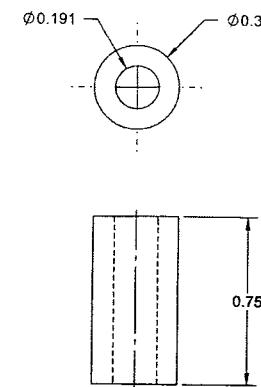
DESIGN	AJS	DART AEROSPACE LTD
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA
CHECKED	JP	DRAWING NO.
MFG. APPR.	NP	REV. B
APPROVED	NP	D4021
DE APPR.	NP	SHEET 2 OF 3
DATE	10.04.06	SCALE
		NTS

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D4021-7 HOOP



D4021-9 BUSHING

## NOTES:

- 1) MATERIAL-7: 304/316 STAINLESS STEEL BAR, PER ASTM A276  
REF DART SPEC M304B
- 9: 304/316 STAINLESS STEEL ROUND BAR, PER ASTM A276  
REF DART SPEC M304R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI C18 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT -7: 0.80 lbs  
-9: 0.02 lbs

RELEASED  
2010-04-14  
NRP

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	JPH	HAWKESBURY, ONTARIO, CANADA	
CHECKED	WV	DRAWING NO. D4021	
MFG. APPR.	WV	REV. B SHEET 3 OF 3	
APPROVED	WV	TITLE MISC PARTS - 350 BASKET	
DE APPR.	WV	SCALE NTS	
DATE	10.04.06	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	